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RemarksA. Claim amendments

Claims 1-5 are being canceled herein without prejudice.

Claim 12 has been indicated as being allowable and has been amended to include the limitations of its base claim (independent claim 6) and intervening claims (dependent claims 7 and 10).

Claim 13 has been amended to overcome the rejection under 35 U.S.C. 112.

C. The Office Action of November 2, 2007C.1. Claim Rejections - 35 USC § 112

On page 2 of the Office Action, claims 5 and 13 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

Claim 5 has been canceled.

Claim 13 was rejected on the basis that the steps of claim 13 constituted a means of using the composition, not making the composition. Claim 13 has been amended to recite a step in making a surface layer. It is respectfully submitted that claim 13 is now in compliance with 35 U.S.C. 112, second paragraph.

C.2. Claim Rejections - 35 USC § 102

On page 4 of the Office Action, claims 1-2, 4-5, 7, and 10 were rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Fukumoto et al., JP 9-12855. As to claims 1-2 and 4-5, these claims have been canceled. As to claims 7 and 10, please see section D. of this paper entitled Applicant's Discussion.

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On page 4 of the Office Action, claims 1-5 were rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sakai et al., U.S. Patent Nos. 5,580,619 and 5,503,932. As to claims 1-5, these claims have been canceled.

On page 5 of the Office Action, claims 1-11, and 13-14 were rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kuramoto et al., JP 2003-82045. As to claims 1-5, these claims have been canceled. As to claims 6-11 and 13-14, please see section D. of this paper entitled Applicant's Discussion.

C.3. Allowable Subject Matter

On page 6 of the Office Action, claim 12 was objected to as being dependent upon a rejected base claim, but it was stated that this claim would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. This is very much appreciated.

Claim 12 has been rewritten in independent form including all of the limitations of the base claim (independent claim 6) and any intervening claims (dependent claims 7 and 10).

D. Applicant's discussion

D.1. As to Fukumoto et al., JP 9-12855

Claims 1-2, 4-5, 7 and 10 were rejected under Fukumoto et al. Claims 1-2 and 4-5 have been canceled. Dependent claims 7 and 10 are discussed below.

As a preliminary matter, it is noted that the Office Action inadvertently refers to "Kukumoto" et al. The

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first named inventor on this reference, JP 9-12855, is Fukumoto, not "Kukumoto." Thus the remarks below refer to Fukumoto et al.

Dependent claims 7 and 10 are dependent upon independent claim 6.

The process according to independent claim 6 is quite different from that of Fukumoto et al. Please see, for example, the English abstract of Fukumoto et al. and a translation of paragraph [0016] of Fukumoto et al. First, the English abstract provides:

PURPOSE: To obtain a thermoplastic resin compsn. improved in resistances to impact and penetration by compounding an arom. polycarbonate resin with a specific composite rubber. CONSTITUTION: 99.5-92wt.% arom. polycarbonate resin obtd. by reacting a dihydric phenol with a carbonate precursor by a soln. or fusion method. 0.5-8wt.% composite rubber formed from 10-90wt.% organosiloxane rubber component and 90-10wt.% polyalkyl (meth)acrylate rubber component and having an interpenetrating network structure of both the rubber components and an average particle size of 0.08-0.6 μ m, and other necessary additives are sufficiently mixed and subjected to pelletization, etc., giving a thermoplastic resin compsn. which has a penetration resistance (according to JIS T 8131) of lower than 15mm at 23 °C and a notched Izod impact strength (according to ASTM D 256) of 45kgfcm/cm or higher at 23 °C and 20kgfcm/cm or higher at -30 °C.

Second, a translation of paragraph [0016] of Fukumoto et al. provides:

[0016] An emulsion polymerization method is most suitable for preparing a composite rubber having an average particle diameter as mentioned above. It is preferable that at first latex of polyorganosiloxane is prepared, thereafter alkyl (meth)acrylate rubber monomer is impregnated into the rubber particles of the latex of polyorganosiloxane, and the above-mentioned monomer is polymerized.

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In column [0016], Fukumoto et al. discloses a process for preparing a composite rubber having an interpenetrating network. According to Fukumoto et al., since the emulsion polymerization method is employed, micelles are formed by an emulsifier, and a monomer is polymerized in the micelles. Therefore, the resulting polymer is in the form of "super fine particles". Indeed, Fukumoto et al. discloses in column [0015] that the average particle diameter of the composite rubber is preferably 0.08 to 0.6 μm .

In contrast, according to the present invention, as is clear from claim 6, previously emulsified polymerizable monomer is absorbed into the particles of polyorganosiloxane, with the polyorganosiloxane having a polysiloxane framework, and then the monomer is polymerized. Therefore, the method for polymerizing a monomer employed in the present invention is not an emulsion polymerization method but one of seed polymerization methods. The role of the emulsifier according to the present invention is to increase the solubility of a monomer to the polyorganosiloxane. Therefore, the monomer is highly absorbed into the polyorganosiloxane having the polysiloxane framework, and the monomer is polymerized in the polyorganosiloxane.

Therefore, since the process according to claim 6 is quite different from that of Fukumoto et al., the product obtained by the process according to claim 6 is quite different from that of Fukumoto et al. Moreover, since the product is quite different from that of Fukumoto et al., effects exhibited by the product are quite different from those of Fukumoto et al. In other words, since the method for preparing an additive is quite different from that of Fukumoto et al., the resulting additive according to the present invention shows excellent physical properties

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unexpected from Fukumoto et al. For example, the additive obtained by the present invention is hardly removed from a binder resin or a resin substrate, and excellent in optical properties such as no luminance unevenness and face luminescence.

Therefore, it is respectfully submitted that dependent claims 7 and 10 are allowable over Fukumoto et al.

D.2. Kuramoto et al., JP 2003-82045

Claims 1-11 and 13-14 were rejected under Kuramoto et al. Claims 1-5 have been canceled. The discussion below thus relates to claims 6-11 and 13-14.

Kuramoto et al. discloses in column [0054] that the polymerization can be carried out in the presence of a surfactant. The role of the surfactant is as a dispersion stabilizing agent (dispersion stabilizer) or an agent for preventing coagulation when polymerizing radical polymerizable unsaturated groups of the particles obtained by hydrolyzation and condensation of a silicone compound. Therefore, Kuramoto et al. does not employ an emulsion polymerization method or a seed polymerization method.

In contrast, according to the present invention, as stated above, the role of the emulsifier according to the present invention is to increase the solubility of a monomer to the polyorganosiloxane. Therefore, the monomer is highly absorbed into the polyorganosiloxane having the polysiloxane framework, and the monomer is polymerized in the polyorganosiloxane.

Accordingly, in the present invention, the additive obtained is hardly removed from a binder resin or a resin substrate, and excellent in optical properties such as no luminance unevenness and face luminescence.

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Thus, since the method for preparing an additive is quite different from that of Kuramoto et al., the resulting additive according to the present invention shows excellent physical properties unexpected from Kuramoto et al.

It is therefore respectfully submitted that claims 6-11 and 13-14 are allowable over Kuramoto et al.

D.3. Attached Declaration

Review of the attached declaration would be very much appreciated.

In Experiment 1 of the declaration, polysiloxane particles were prepared, and the average particle diameter of the polysiloxane particles were 3.1 μm and the particles had a sharp particle distribution.

Further in Experiment 1, styrene together with surfactant was absorbed into the polysiloxane particles, and then a radical polymerization reaction was carried out. The average particle diameter of the resulting particles was 10.2 μm and the particles had a sharp particle distribution.

In Comparative Experiment 1, styrene was not used together with a surfactant. After polymerization, a great number of spherical microparticles having a diameter of about 3 μm and massive large blocks were generated.

A comparison of Experiment 1 and Comparative Experiment 1 shows that, when a monomer is previously absorbed into polysiloxane particles by using a surfactant and thereafter the monomer is polymerized, the resulting particles will have a greatly increased particle diameter.

In summary, first, Fukumoto et al. and Kuramoto et al. do not disclose or suggest the steps of 1) absorbing a monomer into polysiloxane particles using a surfactant and then 2) polymerizing the monomer. Second, Fukumoto et al.

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and Kuramoto et al. do not disclose or suggest that, after the steps of 1) absorbing a monomer into polysiloxane particles using a surfactant and then 2) polymerizing the monomer, the resulting particles will have a greatly increased particle diameter.

E. Housekeeping matters

E.1. Period For Reply

This Amendment and Remarks is being filed in response to the Office Action of March 17, 2008. March 17, 2008 plus three months is June 17, 2008. This paper is being filed on or before Tuesday, June 17, 2008.

E.2. Status

The Office Action of March 17, 2008 was nonfinal.

E.3. Disposition Of Claims

Claims 6-14 are pending.

E.4. Application Papers

This case includes no drawings.

E.5. Priority under 35 U.S.C. §§ 119 and 120

As to foreign priority, acknowledgment of the claim for foreign priority was made in the Office Action dated June 22, 2007. This is appreciated.

Further as to foreign priority, acknowledgment of the receipt of the priority document was made in the Office Action dated June 22, 2007. This is appreciated.

As to domestic priority, this case does not claim domestic priority.

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E.6. Attachments

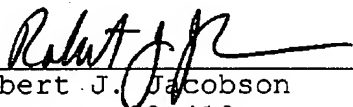
Applicant has filed three PTO-1449 forms in this case (a first with the filing of this case on September 12, 2005, a second on August 18, 2007, and a third on December 6, 2007). All three PTO-1449 forms have been initialed, signed and returned. Such is very much appreciated.

F. Conclusion

Applicant respectfully submits that the present application is now in condition for allowance. The Examiner is respectfully invited to make contact with the undersigned by telephone if such would advance prosecution of this case.

Date: 6-17-08

Tel. No.: (651) 699-7900
Fax. No.: (651) 699-7901



Robert J. Jacobson
Reg. No. 32,419
650 Brimhall Street South
St. Paul, MN 55116-1511